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2004

CyberCIEGE: Can you keep the network alive?

<http://hdl.handle.net/10945/49163>



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CyberCIEGE

Can you keep the network alive?



Information Assurance Teaching/Learning Laboratory

- Application of abstract principles to the real world
- Laboratory adapts to the decisions, omissions and strategies of the students
- Outcomes are indicated by built-in resource limitations and various enterprise success factors
- Three modes of operation
 - Stand-alone ad hoc game
 - Self-paced tutorial
 - Laboratory combined with a course
- Laboratory can be tailored to particular teaching objectives
 - Threats
 - Countermeasures

Extensible

- Scenario based learning includes...
 - PKI
 - Access control
 - Malicious Software
 - Social engineering
 - Common Criteria
- Scenarios depict environments ranging from simple home users to large distributed enterprises
- Game-engine architecture facilitates the addition of feature extensions as new threats and countermeasures in the real world IA landscape evolve
 - Upgrade without invalidating earlier components
 - Enables rapid, continuous and relatively inexpensive updates

Interactive and Entertaining Computer Game

- Commercial-grade 3D graphics
- PC-based
- Players assume or observe various roles involved in defending and attacking a network including...
 - Manager
 - System administrator
 - System user
 - Attacker